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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Tomoko Iiyama

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EXAMINER

SCHWARTZ, JORDAN MARC

ART UNIT

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2873

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/571,618	Applicant(s) IIYAMA ET AL.	
	Examiner Jordan M. Schwartz	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 7-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 7-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 7-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo patent number 6,970,306.

With respect to independent claims 1 and 11, Matsuo discloses the limitations therein including the following: discloses an imaging lens system (abstract); for forming an image of an object onto a light receiving surface of a solid-state sensor (column 1, lines 15-26); comprising in order from an object side, an aperture diaphragm (Figure 4, example 4); a first lens element of positive power with a convex surface on the image side (Figure 4, example 4); a second lens element having negative optical power and being meniscus with a concave object side shape (Figure 4, example 4); a third lens element having a positive power and being meniscus with a convex object side shape (Figure 4, example 4); the satisfaction of the conditional expression "1" (example 4 with $f_d/f_{2d} = 2.1$); the satisfaction of the conditional expression "3" (example 4, with the condition = -1.8); the satisfaction of the conditional expression "4" (example 4 with the condition = -1.8); the satisfaction of the conditional expression "7" (example 4 with the condition = 1.7); the satisfaction of the conditional expression

Art Unit: 2873

“8” (example 4 with the condition = 0.35); the satisfaction of the condition “9” of claim 11 (example 4 with the condition = 29.9) and the satisfaction of the condition “10” of claim 11 (example 4 with the condition = 57.4).

With respect to independent claims 1 and 11, Matsuo discloses as is set forth above including disclosing conditional expression 2 having $\left| \frac{f_d}{f_{3d}} \right| = 1.2$ (example 4) and therefore just outside of the claimed range of “< 1.1”. It has been held that where the claimed ranges and prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, a prima facie case of obviousness exists. Titanium Metals Corporation of America, 227 USPQ 773 (Fed Cir. 1985). Since this difference in overlapping ranges is so minimal, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the lens system constructed such that the second condition of claims 1 and 11 are satisfied since the claimed range closely approximates the suggested value taught by Matsuo.

Matsuo further discloses one of the three lens element having aspherical surfaces on both faces (example 4); and the satisfaction of the second condition of claim 3 (example 4 and see table 7). It is believed that the imaging lens system of Matsuo would inherently satisfy the condition of claim 5, this being reasonably based upon the similarity in structure between the lens system of Matsuo and that of the claimed invention. Matsuo further discloses the satisfaction of the condition of claim 7 (example 4, $V_{1d} = 57.4$); an imaging unit operable to convert an image to an electrical image signal (abstract, column 1,

Art Unit: 2873

lines 10-25); an optical low pass filter on the object side of the sensor (column 4, line 14). With respect to the first condition of claim 3, Matsuo discloses $2\omega_d = 60$ (abstract, assuming the “30 degree viewing angle” is a typographical error and means “30 degree half viewing angle” based on the similarity in structure to that of the claimed invention) and therefore just outside of the claimed range of “> 60”. It has been held that where the claimed ranges and prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, a prima facie case of obviousness exists. Titanium Metals Corporation of America, 227 USPQ 773 (Fed Cir. 1985). Since this difference in overlapping ranges is so minimal, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the lens system constructed such that the first condition of claim 3 was satisfied since the claimed range closely approximates the suggested value taught by Matsuo.

Double Patenting

Claims 1-3, 5, and 7-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 10/571,617 (application ‘617). Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons.

Application ‘617 discloses the limitations therein including the following: the limitations of claim 1 (application ‘617, claim 4 with conditional expression 4 just outside of the claimed range i.e. <-1.7 and ‘617 discloses >-1.7); the

Art Unit: 2873

limitations of claim 2 (application '617, claims 2 and 4); the limitations of claim 3 (application '617, claims 3 and 4 with the first condition of claim 3 just outside of the claimed range i.e. < 70 and '617 discloses > 70); the limitations of claim 7 (application '617, claims 4 and 7); the limitations of claim 8 (application '617, claims 4 and 8); the limitations of claim 9 (application '617, claims 4 and 10); the limitations of claim 10 (application '617, claims 4 and 8); the limitations of claim 11 (application '617, claim 6); the limitations of claim 12 (application '617, claims 2 and 6); the limitations of claim 13 (application '617, claims 3 and 6 with the first condition just outside of the claimed range i.e. < 70 and '617 discloses > 70); the limitations of claim 15 (application '617, claims 6 and 7); the limitations of claim 16 (application '617, claims 6 and 8); the limitations of claim 17 (application '617, claims 6 and 10); the limitations of claim 18 (application '617, claims 6 and 8).

With respect to claims 5 and 14, the examiner takes Judicial Notice that what is claimed is a well known aspherical condition for the purpose of defining the shape of an aspherical surface. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the lens system as disclosed in '617 as having the aspherical surfaces conforming to this condition since it is a well known aspherical condition for the purpose of defining the shape of an aspherical surface. With respect to the limitations that are just outside the claimed ranges, it has been held that where the claimed ranges and prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, a prima facie case of obviousness exists. Titanium Metals Corporation of America, 227 USPQ 773

Art Unit: 2873

(Fed Cir. 1985). Since these differences in overlapping ranges are so minimal, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the lens system of '617 constructed such that these conditions are satisfied since the claimed range closely approximates the values of the present application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a

Art Unit: 2873

nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Examiner's Comments

For applicant's information, the previous indication of allowability set forth in the prior office action has been withdrawn based upon the rejections set forth above.

For applicant's information, with respect to the double patenting rejection set forth above, pursuant to MPEP 804, since both the present application and '617 have the same filing date, and since the present application appears to be the improvement application while '617 appears to be the base application, the double patenting rejection is appropriate.

For applicant's further information, the amended abstract received March 4, 2008 is in compliance with the MPEP.

Response to Arguments

Applicant's arguments with respect to the claims above have been considered but are moot in view of the new ground(s) of rejection set forth above.

Conclusion

Art Unit: 2873

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (571) 272-2337. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jordan M. Schwartz
Primary Examiner
Art Unit 2873
May 20, 2008

/Jordan M. Schwartz/
Primary Examiner, Art Unit 2873